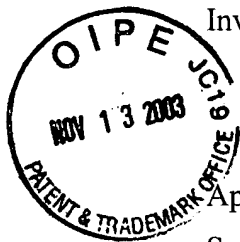


Serial No.: 09/772,800  
Inventor(s): Vogt et al.

U.S. PTO Customer No. 25280  
Case No.: 5138



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Vogt et al.  
Serial Number: 09/772,800  
Filed: January 30, 2001  
For: **Textile Substrates for Image Printing**  
Group Art Unit: 1771  
Examiner: Guarriello, John, J.

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NOV 18 2003  
TC 1700

Commissioner for Patents  
PO Box 1450  
Alexandria VA 22313-1450

Sir:

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Express Mail Label No.: EL 992172975 US

Date: November 13, 2003

Name: Christi Roddy

Signature: Christi Roddy

**AFFIDAVIT BY KIRK VOGT**

1. My name is Kirk Vogt, I reside at 19 Staffordshire Way, Simpsonville, SC 29681.
2. My educational background is as follows: I received a PhD in Chemical Engineering from Georgia Institute of Technology (Georgia Tech) in 1995. Furthermore, I received a B.S. in Paper Science Engineering from the University of Wisconsin in 1988. I am experienced in the manufacture of textile materials, including textile finishing and the like.
3. I am an inventor of the invention described and claimed in US Patent Application Serial Number 09/772,800, filed on 1/30/01, and titled "Textile Substrates for Digital Printing". (The '800 Application).
4. The claimed invention in the '800 Application requires a repellent finish.
5. US Patent Number 6,001,137, titled "Ink Jet Printed Textiles", and issued on December 14, 1999, to Alfekri discloses various chemicals for the treatment of a fabric to be printed with an ink jet printer. One of the chemicals applied to the textile is a "third chemical" which is a "binder". An exemplary "binder" disclosed in Alfekri is a

"cationic acrylic copolymer" (See column 4, lines 39-49). Alfekri also discloses the use of cationic polymers or copolymers (See column 4, lines 49-52) as a binder.

6. A stated in Alfreki, "Cationic binders electrostatically attract anionic dyes" (See column 4, lines 43-49, emphases added). The purpose of the cationic polymer or copolymer, and the cationic acrylic copolymer in Alfekri is to "bind", not repel.

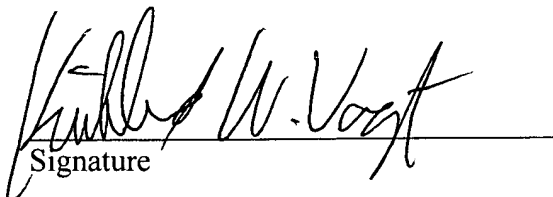
7. Therefore, the cationic polymers or copolymers and cationic acrylic copolymer in Alfekri would not be a repellent finish, as specified in the '800 Application.

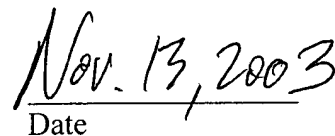
8. A cationic polymer or copolymer charged so as to act as a "binder", as required in Alfekri, would cause the polymer to have an affinity for the materials which would be repelled by a repellent finish. In fact, the cationic charge would cause the polymer or copolymer to be hydrophilic, and in many cases to even be water soluble.

9. An attempt was made to obtain the specifically mentioned cationic acrylic copolymer in Alfekri "Acramin GD, manufactured by Bayer Corporation and marketed by Ameritex of Santa Fe Springs, Calif." It was attempted to be obtained to demonstrate that the counter purpose of the "binder" properties of the acrylic copolymer as opposed to a repellent property of in the present invention. However, the manufacturer and marketer do not make, sell, or have this chemical available to make such a test.

10. Through discussions with Bayer Corporation and other manufacturer, the closest material to Acramin GD which is commercially available are cationic acrylic copolymers, ABCO ST-30 and Super BN from Eastman Chemical Company. Each of these chemicals were placed on separate polyester woven fabric samples at a 1% addition (wt.%). Polyester woven fabric typically will not wick water on the surface of the fabric. However, a drop of water placed on the polyester woven sample with ABCO ST-30 wicked the water into the fabric instantaneously. When a drop of water was placed on the polyester woven sample with Super BN, the water wicked into the fabric in less than 10 seconds. Thus, both of these commercially available chemicals are not a repellent finish.

11. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made re punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
Signature

  
Date